

(6) Record this value as the initial THC concentration,  $x_{\text{THC}[\text{THC-FID}]_{\text{init}}}$ , and use it to correct measured values as described in § 1065.660.

(7) You may correct the measured initial THC concentration for drift as follows:

(i) For batch and continuous HC analyzers, after determining the initial THC concentration, flow zero gas to the analyzer zero or sample port. When the analyzer reading is stable, record the mean analyzer value.

(ii) Flow span gas to the analyzer span or sample port. When the analyzer reading is stable, record the mean analyzer value.

(iii) Use mean analyzer values from paragraphs (f)(2), (f)(3), (f)(7)(i), and (f)(7)(ii) of this section to correct the initial THC concentration recorded in paragraph (f)(6) of this section for drift, as described in § 1065.550.

(8) If any of the  $x_{\text{THC}[\text{THC-FID}]_{\text{init}}}$  values exceed the greatest of the following values, determine the source of the contamination and take corrective action, such as purging the system during an additional preconditioning cycle or replacing contaminated portions:

(i) 2% of the flow-weighted mean concentration expected at the HC (THC or NMHC) standard.

(ii) 2% of the flow-weighted mean concentration of HC (THC or NMHC) measured during testing.

(iii) 2  $\mu\text{mol/mol}$ .

(9) If corrective action does not resolve the deficiency, you may request to use the contaminated system as an alternate procedure under § 1065.10.

[79 FR 23775, Apr. 28, 2014]

#### **§ 1065.525 Engine starting, restarting, and shutdown.**

(a) For test intervals that require emission sampling during engine starting, start the engine using one of the following methods:

(1) Start the engine as recommended in the owners manual using a production starter motor or air-start system and either an adequately charged battery, a suitable power supply, or a suitable compressed air source.

(2) Use the dynamometer to start the engine. To do this, motor the engine within  $\pm 25\%$  of its typical in-use crank-

ing speed. Stop cranking within 1 second of starting the engine.

(3) In the case of hybrid engines, activate the system such that the engine will start when its control algorithms determine that the engine should provide power instead of or in addition to power from the RESS. Unless we specify otherwise, engine starting throughout this part generally refers to this step of activating the system on hybrid engines, whether or not that causes the engine to start running.

(b) If the engine does not start after 15 seconds of cranking, stop cranking and determine why the engine failed to start, unless the owners manual or the service-repair manual describes the longer cranking time as normal.

(c) Respond to engine stalling with the following steps:

(1) If the engine stalls during warm-up before emission sampling begins, restart the engine and continue warm-up.

(2) If the engine stalls during preconditioning before emission sampling begins, restart the engine and restart the preconditioning sequence.

(3) Void the entire test if the engine stalls at any time after emission sampling begins, except as described in § 1065.526. If you do not void the entire test, you must void the individual test mode or test interval in which the engine stalls.

(d) Shut down the engine according to the manufacturer's specifications.

[73 FR 37320, June 30, 2008, as amended at 75 FR 68463, Nov. 8, 2010; 76 FR 57451, Sept. 15, 2011]

#### **§ 1065.526 Repeating of void modes or test intervals.**

(a) Test modes and test intervals can be voided because of instrument malfunction, engine stalling, emissions exceeding instrument ranges, and other unexpected deviations from the specified procedures. This section specifies circumstances for which a test mode or test interval can be repeated without repeating the entire test.

(b) This section is intended to result in replicate test modes and test intervals that are identical to what would have occurred if the cause of the voiding had not occurred. It does not allow you to repeat test modes or test intervals in any circumstances that would